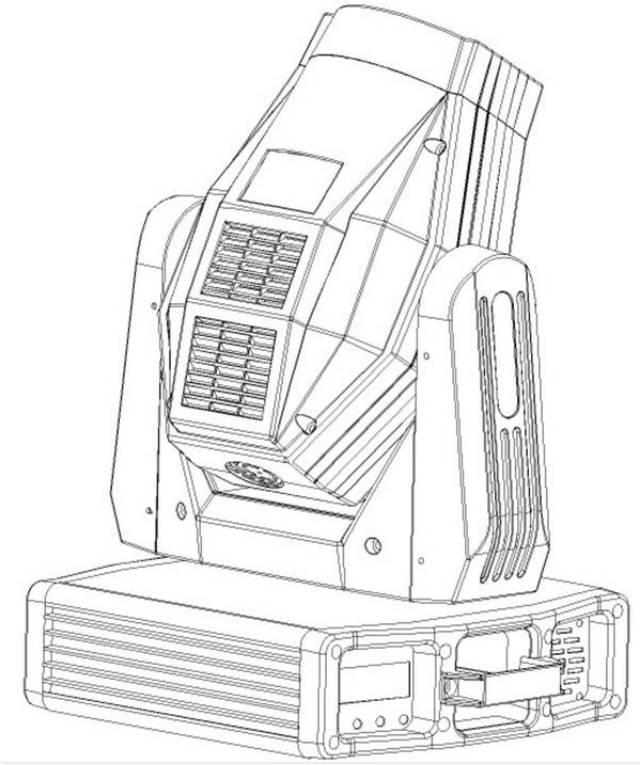
Elektralite ML602

USER MANUAL



Elektralite (a division of Group One),
70, Sea Lane, Farmingdale, NY11735, U.S.A.
T. +1 (631)-396-0184. F. +1 (631)-396-0190
WWW.MYELEKTRALITE.COM

1. Unpacking

Thank you for choosing the **Elektralite ML602 moving light fixture.**. For your own safety, please read this manual before installing the fixture. This manual covers important information on installation and applications. Please keep this manual for future reference.

To keep this simple, we are going to refer to the fixture as the **Elektralite ML602** throughout the manual. The **Elektralite ML602** uses a high powered 90 watt led which is run a balanced and conservative arrangement at 60 watts. Please unpack the **Elektralite ML602** carefully and check whether it was damaged in shipping. Turn the head both horizontally (Pan) and vertically (tilt) to make sure all movement is smooth.

The following items should be in the box with the fixture:-

Safety cable

U brackets

DMX 5 pin male to 5 pin female cable

4 spare gobos

2. Safety Instructions.

This device has left the factory in perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual. The **Elektralite ML602** is a high voltage fixture. Be careful when dealing with high voltages.

Please read this manual. If you do not read this manual and damages occur to the Elektralite ML602, then it could void the warranty.

During shipping, **Elektralite ML602** may have been exposed to high temperature or humidity changes. So, as a precaution, do not switch **Elektralite ML602** on immediately. Condensation can damage **Elektralite ML602** so leave it switched off, until it has reached room temperature.

The electrical connection must be carry out by a qualified person and it is absolutely essential that the **Elektralite ML602** be **grounded**. This is imperative and is a safety issue. Do not break or bend out of the way, the ground center pin on the plug.

Always disconnect the **Elektralite ML602** from the power source, when the device is not in use or before cleaning it. Only unplug **Elektralite ML602** from the power cord. Never pull out the plug out by pulling on the power cord.

Please keep the **Elektralite ML602** away from children and the general public. Please be intelligent and use common sense when operating the **Elektralite ML602**.

3. General Guidelines.

The **Elektralite ML602** is a lighting fixture for professional use on stages, in churches, theatres, etc.
The **Elektralite ML602** should only be operated at between 120 to 240 volts and only indoors. By 240 volts we mean that the neutral must remain a neutral and NOT be used as one phase in a 120v circuit to create 208 volts across the **Elektralite ML602.** The reason for this is simple, the neutral is not protected with a fuse. Any problem with that phase will not be protected by the **Elektralite ML602.**
The **Elektralite ML602** should not be operated 24/7 (24 hours a day; 7 days a week). The **Elektralite ML602** needs operation breaks to ensure that it will work for a long time without problems. Please do not shake **Elektralite ML602** and avoid using brute force when installing or operating it.
When choosing the location to install the **Elektralite ML602**, please make sure that it is not exposed to extreme heat, moisture or dust. The minimum distance between the **Elektralite ML602** and the illuminated surface must be more than 3 feet.
Always mount the **Elektralite ML602** with an appropriate safety cable/chain.
Operate the **Elektralite ML602** only when you are familiar with the features on the fixture. Do not permit operation by persons not qualified to operate it.
All modifications to the **Elektralite ML602 will invalidate the warranty. There are absolutely no exceptions. That includes operation of the fixture at 208v using two different 120v phases.**
If **Elektralite ML602** is operated in any way different to the one described in this manual, the **Elektralite ML602** maybe damaged and the guarantee will be void.

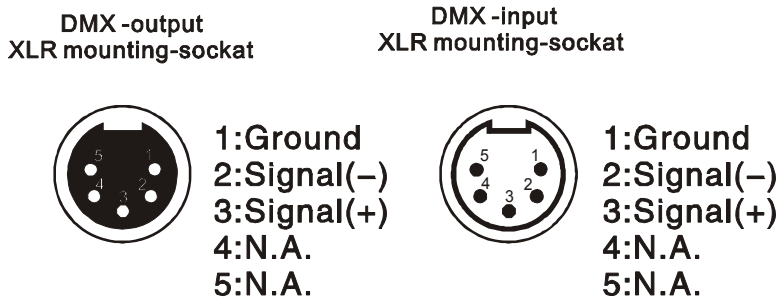
4. Installation

Please ensure that the **Elektralite ML602** is hung using the appropriate "C" clamps or half cheeseboros and the U brackets that come with the **Elektralite ML602**. A safety chain or cable should also be used as a secondary point of holding the fixture in case the clamp comes loose. **Never hang the fixture without a safety chain or cable**.
Mount the **Elektralite ML602** either vertically upright or vertically down. DO not mount the **Elektralite ML602** sideways.
If you are not qualified or have any doubts about hanging the **Elektralite ML602** then do **NOT** hang it.
Do not clamp the cable to the U bracket or clamp. That is not a secondary safety point.
A secondary safety point is any point that will adequately hold the **Elektralite ML602** if the "U" brackets, "C" clamps or half cheese-boros fail. Then the safety cable would be the backup and stop the **Elektralite ML602** from falling to the ground. So do **NOT** fix the safety to the same place that the "C"clamps/half cheese-boros are attached.

5. DMX-512 Control Connection

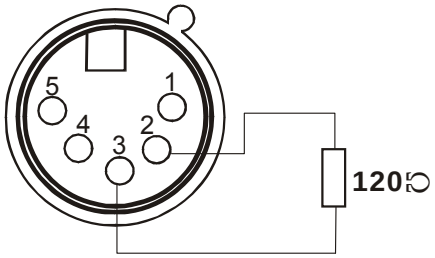
Connect the provided XLR cable to the female 5-pin XLR output of an **Elektralite CP 16/24** or other DMX controller. The other end should be connected to the male 5-pin XLR input of the **Elektralite ML602**. Then daisy-chain out of the first **Elektralite ML602** and into the next **Elektralite ML602** or other dmx device. Never **"Y"** split the DMX connection.

If you need more cable, then it should be two core, screened cable fitted with a 5 pin XLR input and output connector. Please refer to the diagram below. (Please remember the DMX signal has a maximum transmission distance of just 300 feet from controller to the last fixture. So don't use 50 foot cables when you only need 10 or 15 foot cable runs).



DMX-512 connection with DMX terminator

For installations where the DMX cable does run a long distance or is in an electrically "noisy" environment, it is recommended that a DMX terminator is used. This helps prevent corruption of the digital control signal. The DMX terminator is simply a 5 pin XLR plug (male) with a 120 Ω resistor connected between pins 2 and 3. It is then plugged into the output XLR socket of the last **Elektralite ML602** or other dmx device in the chain. Please see illustration below.



6. Menus in the fixture.

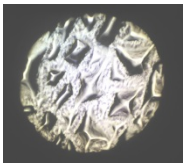
DMX Address	Address 001-255	
Parameter	back	
	control	Standard
		Extended
	Name	Fixture Name
Option	back	
	X Reverse	No/Yes
	Y Reverse	No/Yes
	XY Exchange	No/Yes
	Dimmer Revers	No/Yes
	turn shortest	No/Yes
	DMX Reset	No/Yes
Display	Language	Chinese
		English
	Brightness	1-32
	Display light	constant on
		dim
		off
	Logo (show logo)	Yes/No
Man control	back	
	ch 1	0-255
	ch 2	0-255
	ch 3	0-255
	ch 4	0-255
	ch 5	0-255
	ch 6	0-255
	ch 7	0-255
	ch 8	0-255
	ch 9	0-255
	ch 10	0-255
	ch 11	0-255
	ch 12	0-255
	ch 13	0-255
	ch 14	0-255
	ch 15	0-255
	ch 16	0-255
Test operation	back	
	Sound	program run
	Auto	program run
Default	back	
	enter	
Fixture reset	back	
	enter	

7. Channel Values for profiling the Elektralite ML602.

Ch 1 Pan	0-450°	000-255
Ch 2 Tilt	0-270°	000-255
Ch 3 Pan Fine	Fine Pan movement	000-255
Ch 4 Tilt Fine	Fine Tilt movement	000-255
Ch 5 Color Effect	Colors are "full on". Channel 6 DMX values "snap" instantly to the color. There is no ability for adjacent colors on wheel to be displayed	000-127
	Colors wheel can be rotated so that adjacent colors can be displayed. So "half" or "in between" colors can be seen.	128-255
Ch 6 Color Wheel	No color White Light	000-015
	Color 1	016-031
	Color 2	032-047
	Color 3	048-063
	Color 4	064-079
	Color 5	080-095
	Color 6	096-111
	Color 7	112-127
	Rainbow effect. Positive rotation of the color wheel from fast to slow	128-191
	Rainbow effect. Negative rotation of the color wheel from slow to fast	192-255
Ch 7 Fixed Gobo Wheel	Open white no gobo	000-015
	Gobo 1	016-031
	Gobo 2	032-047
	Gobo 3	048-063
	Gobo 4	064-079
	Gobo 5	080-095
	Gobo 6	096-111
	Gobo 7	112-127
	Positive rotation of the fixed gobo wheel from fast to slow	128-191
	Negative rotation of the fixed gobo wheel from slow to fast	192-255
Ch 8 Rotating Gobo Wheel (Selecting a rotating gobo)	Open white no gobo	000-015
	Gobo 1	016-031
	Gobo 2	032-047
	Gobo 3	048-063
	Gobo 4	064-079
	Gobo 5	080-095
	Gobo 6	096-111
	Gobo 7	112-127
	Positive rotation of the rotating gobo wheel itself. [Not the gobos. See Ch 9 for that]. Speed from fast to slow.	128-191
	Negative rotation of the rotating gobo wheel itself. [Not the gobos. See Ch 9 for that]. Speed from slow to fast.	192-255
Ch 9 Rotatiing gobo wheel (Rotation of the gobo)	Static positioning of gobo	000-127
	Rotation of the gobo itself in a positive direction. Speed from fast to slow.	128-191
	Rotation of the gobo itself in a negative direction. Speed from slow to fast.	192-255
Ch 10 Shutter	Shutter closed	000-010
	Shutter open	011-039
	Shutter strobing from fast to slow.	040-240
	Shutter open	241-255
Ch 11 Dimmer	0 to 100% output	000-255
Ch 12 Reset	No effect	000-254
	Reset	255
Ch 13 Prism Select	Open white No Prism	000-031
	Prism	032-255
Ch 14 Prism Rotation	Static positioning of prism	0-127
	Positive rotation of the Prism. Speed from fast to slow	128-191
	Negative rotation of the Prism. Speed from slow to fast	192-255
Ch 15 Focus	Variable	0-255

8. Gobos.
Rotating Gobos.

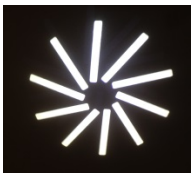
1st Gobo


2nd Gobo

3rd Gobo

4th Gobo

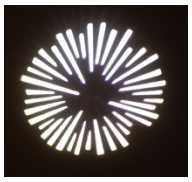
5th Gobo

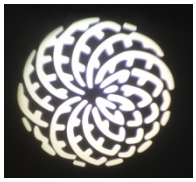

6th Gobo

7th Gobo

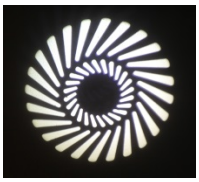
Fixed Gobos

1st Gobo


2nd Gobo


3rd Gobo

4th Gobo


5th Gobo

6th Gobo

7th Gobo

And 4 x Extra Free Gobos.

9. Maintenance

Now ignoring maintenance and cleaning is very good way of creating problems "down the road" and many companies and installations do just that. However the net result is, no matter what the fixture, premature failure!
Changing the oil in a car most people do on a regular basis.
So with the fixtures, regular maintenance is an excellent practice, if you want the fixtures to last.
So what is the maintenance for the fixture? The most important routine maintenance is

Clean the fans!

Use a small vacuum cleaner and suck the dust and “fur balls” out.
Do not use a can of co². That will just blast the dust and dirt everywhere! Over the colors, lens and gobos.
The fans keep the led cool and also keep the electronics cool too.
Without the fan working efficiently and dust free, the fixtures will fail and that will be a lot more costly than having someone vacuum the fixtures on a regular basis.
How often should the fans be cleaned? It depends on where the fixtures are; in a very dusty atmosphere once a week. So check the fans on a regular basis, it may not need cleaned every week but a quick “visual inspection” should be done.
The front lens should be cleaned so the light output is maintained. Use only a moist lint-free cloth. Never use alcohol or solvents to clean the fixture.
Apart from cleaning the fans, the shafts of the focus lens will need very occasional cleaning off the old grease and re-greasing. Do not just add new grease; otherwise the dirt caught in the old grease will seized up focus. Use high temperature grease and only a little; otherwise it could be sprayed all over other mechanisms that could be damaged by the grease.

10. Technical Specification.

- Operating voltage 100 – 250v (where the Neutral is always a Neutral not a different phase)
- Frequency 50 – 60 Hertz
- Fan cooled
- Length 12" x Width 11" x Height 19"
- Length 305mm x Width 280mm x Height 483mm
- 30 pounds 14kgs (out of box)
- 37 pounds 17kgs (in box)

Elektralite is a division of Group One. Group One and its divisions are constantly improving their product range and we reserve the right to make changes without prior notice.

[Difference between V1.28 manual and V1.29 is the description of the channel functions has been augmented. Difference between V1.29 and V2.0 is the addition of the gobo photos and added description of maintenance].

Other Products.

Elektralite has other great products that are manufactured under the Elektralite product line.

Go check out the website at www.myelektralite.com

A preview of the products include:-

Elektralite Audience Blinder

Elektralite LightStream

The Unique LightStream. Utilizing 6 x 12 watt quad leds. All individually controllable. Split heads for more simultaneous room coverage. Manual or "auto-pilot" control.

The Elektralite 1018

Using 18 high powered 12 watt leds, the Elektralite 1018 is available using 4-in-1 or 6-in-1 leds. Each led can produce any combination of colors as each led is either an RGBW or RGBWAI device

Elektralite Eyeball

Using 7 high powered 12 watt leds, the Elektralite eyeBall uses either 4-in-1 or 5-in-1 leds.Each led can produce any combination of colors as each led is either an RGBW or RGBWA device.